

PP-186 Evaluation of hydatid cyst manifestations in patients admitted to a tertiary hospital in Tehran, Iran, during a 20-year periodM. Amini¹*, ¹Shahed University, Faculty of Medicine, Iran

Background: Hydatid cyst is one of the most important and dangerous human and herbivore animal helminthic disease. Infection is quite prevalent in Iran, however, patients' features and manifestations have not been clarified thoroughly, thus, in the present study we evaluated Iranian patients with hydatid cyst referred to a tertiary hospital in Tehran during a 20-year period (1984–2004).

Materials and Methods: For this descriptive study, initial data including age, sex, clinical symptoms, cyst type, the place of cyst replacement, diagnostic technique, laboratory findings, treatment modalities and relapse were obtained from patients medical files.

Results: Totally, 60 patients aged 4–70 years were entered, of whom 32 (53.3%) were females and 28 (46.7%) were males. House-wives (75%) and farmer men (42.8%) were more commonly affected. In 80% of the cases cyst was found in liver (lonely or with other organ involvement). *Echinococcus Granulosus* was detected in all patients. RUQ pain and cough and sputum were the most common symptoms of liver and lung cysts, respectively. Totally, 20% of patients referred with relapses, most of whom were multivesicular.

Conclusion: Our results revealed that hydatid cyst in Iran is more or less the same as other western societies, however, a high rate of relapse in multivesicular cysts was noted.

PP-187 Investigation on anti-leishmanial effects of artemisinin in comparison with glucantim on *Leishmania major* in vitroS. Nemati^{1,2}, H. Nahrevanian²*, A. Haniloo¹, M. Farahmand², A. Fazaeli¹. ¹Zanjan University of Medical Sciences of Iran, ²Pasteur Institute of Iran, Iran

Background: Cutaneous leishmaniasis (CL), a zoonotic infection caused by *L. major* and *L. tropica*. This disease is still one of the health problems in the world, region and Iran. Although artemisinin (qinghaosu) is widely used as anti-malarial agent, it is also demonstrated its anti-promastigote activities and an inhibitory effects on leishmania proliferation.

Methods: In this study, artemisinin was diluted in the methanol and promastigotes of *L. major* were treated with four concentrations (61.5, 125, 250, 500 μ M) of artemisinin and compared with those treated with glucantim and untreated groups. The number of promastigotes in each well was counted using a haemocytometer slide at 24, 48, 72 hours after being harvested.

Result: Artemisinin inhibited the parasite proliferation at doses of 250 and 500 μ M at 48 and 72 hours in culture medium. The related doses of 61.5 and 125 μ M presented the same effect at 24, 48 and 72 hours of cultivation. Moreover, glucantim inhibited parasite multiplication at doses of 125, 250 and 500 μ M at 48, 72 hours.

Conclusion: Artemisinin at concentration of 500 μ M is strikingly potent against leishmania, inhibiting the growth of *L. major* promastigotes after 72 hours.

PP-188 Efficacy of *Schistosoma mansoni* Paramyosin (Sm97) and fatty acid binding protein (Sm-FABP) as a candidate vaccine against schistosomiasis mansoniT. Diab¹*, I. Aly¹. ¹Theodor Bilharz Research Institute, Parasitology Dep., Egypt

Objective: To evaluate the efficacy of *Schistosoma mansoni* paramyosin (Sm97) and *Fasciola gigantica* fatty acid binding protein (Fg-FABP) as potential candidate vaccines against *Schistosoma mansoni* infection.

Methods: Swiss Albino mice were immunized intraperitoneally (IP) three times, 2-week intervals, with 100 mg of purified Sm97 (gr. 1) or Fg-FABP (gr. 2). Two weeks later, immunized and control (gr. 3) mice groups were infected with 80 *S. mansoni* cercariae via tail immersion method. Eight weeks post-infection all mice groups were sacrificed for subsequent assessment of parasitological and immunological measurements.

Results: Immunization of mice with purified Sm97 and Sm-FABP induced marked reduction in worm burden (44.1% & 60.5%), intestinal and hepatic egg loads (59.1% & 40.8% for Sm97 and 37% & 69.3% for Sm-FABP), granuloma size (61% and 43%) and number of granulomas (32.6 & 42%) when compared to infected control group. Protective immunity in mice was associated with high titers of specific anti-Sm97 IgG₁ and IgG₂ and anti-FABP IgG₁, IgG₂, IgG₄ and IgM.

Conclusion: Purified Sm97 or Fg-FABP would be potential candidate vaccines against schistosomiasis though Sm-FABP had a better protective effect against schistosome infection than Sm97.

PP-189 Evaluation of the anthelmintic effects of artemether against experimental *Schistosoma mansoni* infection in mice using different time periods of treatmentI. Aly¹*, R. Kamel², S. Mahmoud¹, N. Madboly³. ¹Theodor Bilharz Research Institute, ²Women College for Arts, Science and Education, ³Cairo University, Egypt

Background: This work was to evaluate the chemo prophylactic effect of artemether on different *S. mansoni* developmental stages.

Methods: Male albino mice were infected with 80±10 of *S. mansoni* cercariae, and then classified into 7 groups each of 10 mice. Infected-untreated mice (A), PZQ-treated 42 days PI in a dose 500 mg/kg/b. wt. for two consecutive days (B), whereas in groups (C, D, E, F and G) mice were treated with artemether at five different time periods 7, 14, 21 and 45 days post infection and 2 days before infection, respectively in a dose (50 mg/kg/b.wt.). Parasitological and histopathological criteria were employed.

Results: The results of the present study suggest that i.m dose of 50 mg/kg artemether at 7, 14 and 21 days PI were efficacies against *S. mansoni* with total worm reduction (73.10%, 77.43% and 87.15%, respectively). Furthermore, there was a significant decline ($P < 0.001$) in the mean granuloma number as well as the mean granuloma diameter.

Conclusion: It was concluded that artemether could be a promising agent in the control of schistosomiasis mansoni; also it has a potentiality in improving the hepatic lesions. Furthermore, it is effective as a chemo prophylactic agent.